# ASX Announcement

#### CORPORATE DIRECTORY

Chairman **GRANT MOONEY** 

Non-Executive Director ANDREW GARTH

Non-Executive Director TERRY STINSON

Non-Executive Director **ASHLEY ZIMPEL** 

CEO REBEKAH LETHEBY

### **CONTACT DETAILS**

41-43 Wittenberg Drive Canning Vale, WA **AUSTRALIA 6155** 

enquiries@auroralabs3d.com t. +61 (0)8 9434 1934 auroralabs3d.com

ASX CODE: A3D ACN: 601 164 505 Aurora Labs Quarterly Report and Appendix 4C, Quarter Ending 30 June 2024

# **Highlights:**

- Completion of the second test bench phase for the A3D printed gas turbine for Defence and energy generation applications
- Signing of a Memorandum of Understanding with Turbine Machine Genes.
- Continued engagement with Defence partners for industrial printing services and printed products
- AL250 detailed build phase is completed, and final calibrations are almost completed.
- Appointment of new Non-Executive Director, Andrew Garth
- Completion of surveillance audit of ISO 9001, to retain our accreditation

Aurora Labs Limited ("A3D" or "the Company") (ASX:A3D), is pleased to provide its quarterly report to shareholders and appendix 4C for Q4 FY2024.

Commenting on activities, CEO Rebekah Letheby said:

"The team has been consolidating several work packages to complete important milestones for the commercialisation of our AL250 printer as well as innovating to develop and build on the success of our 3D printed micro gas turbine . The finalisation of the AL250 detailed build and its move to detailed functionality assessment is almost at completion point. The AL250 will be working to build parts for prospective customers of the printer and to print in Inconel 625 for our micro gas turbines in the coming weeks.

Our further focus is concentrating on the micro gas turbine project. Significant strides have been made in bedding down the detailed design of the 20kg thrust model and I am delighted that flight tests were completed subsequent to quarter end."

### **AL250 Printer**

Aurora Labs has made significant advancements in the design, build and final functionality testing of the AL250 printer. The comprehensive design phase was finalised in prior quarters and moved through to the intensive build phase completion this quarter. We are now working through the final phase of machine functional testing with the plan for the machine to be received into the printing bureau prior to July end.



The AL250 3D Metal Printing in Preparation for Printing



Parts Targeted for AL250 Printing, Including Motor Mounts for UAV's

The AL250 printer leverages laser powder bed fusion (LPBF) technology, which uses a laser to selectively melt and fuse layers of metal powder. This process enables the production of highly detailed and complex parts with excellent mechanical properties. The printer's best-in-class optics, optimised powder handling system, and continuous MCP printing are integral parts that enhance its capability to produce high-quality industrial parts.

Inconel 625 is confirmed as the selected material for initial machine startup, targeting industries such as defence, aerospace, and oil & gas due to the excellent material properties which are utilised widely in applications for these industries.

This significant step marks a highly anticipated milestone in our journey and allows select customers who have expressed interest in the need for laser powder bed fusion machines to see the assembly of the AL250 in advance of a sale.

## **Micro Gas Turbine**

Aurora Labs successfully completed the second phase of bench testing for its 200-class micro gas turbine, demonstrating its suitability for applications such as unmanned aerial vehicles (UAVs). We looked to ensure that our

test bench was upgraded to account for further detailed sensor measurements to mass flow air measurement and vibration.

The second testing round continued to provide promising results on fuel efficiency, temperatures of the combustion chamber, mass air flow, and thrust measurements. The Company continues to target improvements to its combustion chamber to achieve excellent efficiency of fuel consumption to improve the range of its turbines. The propulsion team has identified key areas for refinement to improve engine performance, leveraging the efficient metal 3D printing production method alongside pushing the boundaries on the geometry of the combustion chamber.



3D Printed Engine, Mounted to Airframe for Flight Testing

Subsequent to the end of the quarter, an airframe was pushed through a functional capability and assessment to ensure that the Company could complete flight altitude and performance tests, marking a crucial step toward commercialising the turbine, as this increases the ability to stress test the micro gas turbine in the real-world environment. The maiden flight of the 3D printed gas turbine was a complete success and the propulsion unit will now undergo further development and testing trials.

This is an exciting milestone to have achieved in the 6 months that we have been developing the 3D printed propulsion product. By leveraging 3D printing we have been able to produce a turbine that is not only lightweight but also optimised for performance and efficiency. Our micro turbine is the beginning of a potential range of applications from industrial power generation to aerial systems.

# **Industrial Print Services Bureau**

Aurora Labs remains focused on building revenues from its print services business, utilizing existing printers at the Canning Vale facility. The Company served customers focused in the defence, resources, and oil & gas industries. Project work for ISO 9100D certification is underway for the services business, aiming to enhance capabilities in the aerospace and defense markets with high-precision 3D metal printed components. The 9100D certification will position the Company strongly for future 3D metal printing work which requires precision quality requirements particularly tailored for parts production which enter this highly exacting supply chain with a need for quality and

safety as its cornerstones.



Parts Produced by Industrial Printing Services

## **Defence Engagement for Printing Services**

Aurora Labs secured a significant purchase order from the Department of Defence to supply experimental metal alloy 3D printed parts. This contract is seen as an entry point into a larger market where the company has been focusing its business development efforts. Aurora Labs will be supplying the print production specialty componentry from its industrial print services at the Canning Vale headquarters.

The Company's participation in defence sector engagements has been strengthened, showcasing the capability of 3D printed parts tailored for specific defense applications. The increase in contact from defence customers with a wide variety of requirements has shown that our increased focus is paying dividends and continued work with defence customers such as Sovereign Propulsion Systems (SPS), demonstrate this growing print services business.

Testing in the current second rapid round of work for our customer, SPS, Aurora is working with its engineering team to provide potential printed components that will be integrated into the innovative UAV platform.

Production efficiency, the weight of components, and mechanical strength are key areas of A3D's testing focus. These two items are intrinsically embedded in A3D's additive manufacturing process by improving parts which can be light weighted through design or material selection, but which ensure performance of the required mechanical properties.

Subsequent to the end of the quarter, A3D showcased the Company's capabilities at the Indian Ocean Defence and Security Conference. The conference, known for its focus on defense and security in the Indian Ocean region, attracted a diverse range of stakeholders, including government representatives, defence contractors, and industry leaders. Attending the forum provided a significant opportunity to meet directly with customers of our 3D printing services.

Our participation allowed us to showcase A3D's advanced metal printing capabilities to a highly targeted audience. These discussions highlighted the unique value our metal printing technology brings to the table, such as rapid prototyping, customised production, and the ability to create complex geometries that traditional manufacturing methods cannot achieve.



A3D's CEO Rebekah Letheby with Innovaero's Co-Managing Director, Mike von Bertoch

The conference also provided a platform for us to understand the unique needs of the defence sector, allowing us to tailor our offerings to meet these demands effectively. Moreover, the networking opportunities were invaluable. We forged relationships with key decision-makers and established potential partnerships that could lead to future collaborations and contracts. By attending the Indian Ocean Defence and Security Conference, we not only gained visibility but also positioned our business as a vital contributor to the region's defence and security landscape.

## **Commercialisation Activities**

Aurora Labs continues to pursue advancement of the commercial viability of its Multiple Layer Concurrent Printing (MCP) technology, which has the potential to significantly improve the efficiency of 3D printers. MCP maintains up to 100% scanner utilization and up to 91% laser utilization for prints, allowing Aurora Labs to compete against larger machine makers in the additive manufacturing industry. The company secured an additional supporting MCP patent in Japan, underscoring its commitment to the technological advancement of continuous printing. Improved print production times and outcomes which couple with large print areas and therefore more amenable to production line type systems is the next step in taking concept designs into scaled prototypes to see that benefits are indeed proved out at scale. A drive to document a concept new MCP design will now translate to a beginning a further program of detailed design.

## **Research and Development Advancements**

The research and technology development team focused on new prototype propulsion development to prove the commercial benefits of the printed micro gas turbine. This included design work for new system components for larger scale micro gas turbines. Aurora Labs continues to work on the delivery of the first 200 class micro gas turbine, which will incorporate unique technology to the micro turbine for improved performance against traditional engines in the same thrust class.



# **Corporate, Finance and Cash Position**

During the quarter, related party payments were approximately \$124,000, including director fees paid from the approved pool of fees as approved by shareholders. On 30th June 2024, the Company's cash at bank and on deposit was approximately \$1.65 million.

#### Ends

Approved for release by the Company's Board of Directors.

For further information, please contact: Rebekah Letheby, Chief Executive Officer +61 (0)8 9434 1934 or by email <a href="mailto:enquiries@auroralabs3D.com">enquiries@auroralabs3D.com</a>

## **ABOUT AURORA LABS**

Aurora Labs Limited ("the Company"), an industrial technology and innovation company that specialises in the development of 3D metal printers, powders, digital parts and their associated intellectual property.

Aurora Labs is listed on the Australian Securities Exchange (ASX: A3D)

## FORWARD LOOKING STATEMENTS

This announcement contains forward-looking statements which incorporate an element of uncertainty or risk, such as 'intends', 'may', 'could', 'believes', 'estimates', 'targets' or 'expects'. These statements are based on an evaluation of current economic and operating conditions, as well as assumptions regarding future events.

These events are, as at the date of this announcement, expected to take place, but there cannot be any guarantee that such events will occur as anticipated or at all given that many of the events are outside Aurora's control.

Accordingly, Aurora and the directors cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur. For further information, please contact: <a href="mailto:enquiries@auroralabs3D.com">enquiries@auroralabs3D.com</a>

# **Appendix 4C**

# **Quarterly cash flow report for entities** subject to Listing Rule 4.7B

Name of entity

Aurora Labs Limited (ASX: A3D)	
ABN	Quarter ended ("current quarter")
44 601 164 505	30 June 2024

Со	nsolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	53	272
1.2	Payments for		
	(a) research and development	(162)	(383)
	(b) product manufacturing and operating costs	(15)	(60)
	(c) advertising and marketing	(8)	(27)
	(d) leased assets	(41)	(127)
	(e) staff costs	(432)	(2,026)
	(f) administration and corporate costs	(98)	(779)
1.3	Dividends received (see note 3)		
1.4	Interest received		
1.5	Interest and other costs of finance paid	(1)	(15)
1.6	Income taxes paid		
1.7	Government grants and tax incentives	-	589
1.8	Other		
1.9	Net cash from / (used in) operating activities	(704)	(2,558)

2.	Cas	sh flows from investing activities		
2.1	Pay	ments to acquire or for:		
	(a)	entities		
	(b)	businesses		
	(c)	property, plant and equipment	(6)	
	(d)	investments		
	(e)	intellectual property		
	(f)	other non-current assets		

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Соі	nsolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
2.2	Proceeds from disposal of:		
	(a) entities		
	(b) businesses		
	(c) property, plant and equipment		
	(d) investments		
	(e) intellectual property		
	(f) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other		
2.6	Net cash from / (used in) investing activities	(6)	(9)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities) (See Note 1 below)	2,040	2,982
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options	100	100
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(91)	(123)
3.5	Proceeds from borrowings	-	872
3.6	Repayment of borrowings	(12)	(573)
3.7	Transaction costs related to loans and borrowings	-	(30)
3.8	Dividends paid		
3.9	Other (provide details if material)		
3.10	Net cash from / (used in) financing activities	2,037	3,228

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	320	987
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(704)	(2,558)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(6)	(9)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	2,037	3,228
4.5	Effect of movement in exchange rates on cash held	-	(1)
4.6	Cash and cash equivalents at end of period	1,647	1,647

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,647	320
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,647	320

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	(124)
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
Note: i	if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must inclu	ide a description of and an

explanation for, such payments.

7.	Financing facilities  Note: the term "facility' includes all forms of financing arrangements available to the entity.  Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	726	252
7.2	Credit standby arrangements (credit cards)	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	726	252
7.5	Unused financing facilities available at qua	arter end	474
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing		

rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

The Company has a facility with Mitchell Asset Management for R&D funding, were funds.

The Company has a facility with Mitchell Asset Management for R&D funding, were funds are available to be drawn down to 80% of the expended value of R&D that has been spend to date, as confirmed by our R&D advisor and tax advisor. The interest rate that is applicable is 18%. The facility is secured by the 2024 tax refund as a result of the R&D refundable amount.

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(704)
8.2	Cash and cash equivalents at quarter end (item 4.6)	1,647
8.3	3.3 Unused finance facilities available at quarter end (item 7.5)	
8.4	Total available funding (item 8.2 + item 8.3)	1,647
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	2.34 quarters
	Note: if the entity has reported positive net operating cash flows in item 1.9, answer ite	em 8.5 as "N/A". Otherwise, a

figure for the estimated quarters of funding available must be included in item 8.5.

8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:

8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

## Answer:

8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

## Answer:

8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

# Answer:

Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.

# Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply

with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Date: 31 July 2024

Authorised by: .The Board of Directors

(Name of body or officer authorising release – see note 4)

#### Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.